COMMONLY USED TECHNIQUES

References to Commonly Used Techniques

Many of the protocols in this manual assume a knowledge of basic (chemical and biochemical) techniques. Although these are outside the scope of *Current Protocols in Nucleic Acid Chemistry* (CPNC), a number of basic methods can be found in this volume — either as support protocols or as part of longer protocols. While tailored to the particular goals of the units in which they appear, such protocols can be adapted by the trained researcher to suit the needs of a particular laboratory. If additional explanation or details for molecular techniques are required, the reader is advised to consult *Current Protocols in Molecular Biology* (CPMB; Ausubel et al., 2000). To facilitate this cross-referencing, we have cited relevant CPMB units throughout the book. Alternatively, protocols from other published laboratory manuals can be used. For basic chemical methods, any number of college laboratory textbooks can be consulted.

Table A.3A.1 lists some commonly used techniques described in the book; if a protocol is not listed here, check the index.

Table A.3A.1 Locations of Techniques Used in CPNC

Technique	CPNC reference
Denaturing polyacrylamide gels	*APPENDIX 3B*
DNA, genomic fragments, sonication	*UNIT 8.1*
DNA, genomic fragments, size fractionation	*UNIT 8.1*
DNA strand scission by piperidine	*UNIT 6.4*
DNA, ethanol precipitation	*UNIT 6.1*
DNA, phenol/chloroform extraction	*APPENDIX 2A*
DNA, 5′ labeling	*UNITS 6.1 & 9.2*
DNA quantitation, spectrophotometrically	*UNIT 5.2*
Mutagenic PCR	*UNIT 9.4*
Nitrogen atmosphere, setup	*UNITS 1.1 & 1.3*
Oligonucleotide synthesis, general	*APPENDIX 3C*
Oligonucleotides, deprotection	*APPENDIX 3C*
Oligonucleotide extinction coefficient	*UNIT 7.3*
Oligomers, primer extension	*UNIT 6.1*
Oligonucleotide purification	
cation-exchange resin	*UNIT 10.1*
spin column	*UNIT 10.1*
C18 reversed-phase cartridge	*UNIT 10.1*
molecular-weight-cutoff filter	*UNIT 10.1*
electroelution from gel slice	*UNIT 5.4*
elution from gel slice	*UNITS 5.2, 6.3, & 9.2*
Primer design	*UNIT 9.2*
RNA, 3′ labeling	*UNITS 6.1 & 6.3*
RNA, 5′ labeling	*UNITS 6.1 & 6.3*
RNA renaturation	*UNIT 6.3*
RNAse-free water, testing	*UNIT 6.1*
RNAse-free reagents	*APPENDIX 2A*
RNA purification, NAP-25 Sephadex columns	*UNIT 5.2*
Transcription, in vitro	*UNIT 9.4*
Trityl assay	*APPENDIX 3C*
Thin-layer chromatography	*UNIT 2.4*

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LITERATURE CITED

Ausubel, F.A. Brent, R., Kingston, R.E., Moore, D.D., Seidman, J.G., Smith, J.A., and Struhl, K. (eds.) 2000. Current Protocols in Molecular Biology. John Wiley & Sons, Inc. New York.